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In the Specification

Please replace the paragraph on page 7, starting at line 19, with the following marked up paragraph:

-- One or more description schemes describing the multimedia content 103 are designated as "context nodes" within the content schema. [[-]]The schema 105 may be a collection of separate context node schemas, each defining one of the context nodes in the multimedia content 103. The separate context node schemas enable the re-use of context node definitions to describe content of varying structures. The context node schema identifies the required and optional elements and attributes of the context node and the maximum number of its children elements and their attributes that may be present in an instance document.--

Please replace the paragraph on page 18, starting at line 1 with the following marked up paragraph:

-- If the method 425 determines if the schema order may not be preserved at block 426, it reads the order field 525 to determine if the attributes are ordered (block 432). If they are, the method 425 proceeds as if the schema order was preserved (looping through blocks 427 through 430). Otherwise, the number of optional attribute elements is obtained from number field 535 in the section header 531 to serve as a loop counter at block 433. The method 425 extracts the attribute identifier 537 from the each optional attributes field 533 at block 434. It uses the identifier to determine the characteristics of the optional attribute from the schema and extracts the corresponding value 529 from the field 533 at block 435. Once all the values for the optional attributes have been extracted, the method re-creates the optional attributes for the context node at block 431 and returns to the decode method 400.--

Please replace the paragraph on page 21, starting at line 1 with the following marked up paragraph:

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-- Returning now to block 456, if the schema order may not be preserved, the method 455 determines whether or not the elements are in order using the order field 525 (block 4656). If they are in order, the section is encoded using format 570 and the method 455 proceeds as if schema order was preserved by obtaining the mask 575 at block 457 and looping through blocks 458 through 464. If the elements are not ordered, the section is

encoded according to format 580 and the value in the number field 585 is used as a counter for the loop starting at block 466 and ending at block 472. For each optional element, the identifier 587 is obtained from the optional elements field 583 (block 467) and used to determine the characteristics of the element in the schema. If the element cannot repeat (block 468), the method 455 gets the value 577 from the optional element field 583 at block 469. If there may be multiple occurrences of the element, for each occurrence (block 470) the value 577 is extracted from the optional elements field 583 at block 471. Once all occurrences for this particular element have been extracted, (i.e., the repeat field 579 is "0", (block 473), the method 455 returns to block 467 to process the next element.--

Please replace the paragraph on page 24, starting at line 21 with the following marked up paragraph: KD 4/22/08

-- The identifiers for attributes and elements, and the addresses for context nodes can be assigned in various ways. In one embodiment, the identifiers and addresses are based on the relationships 600 between the elements within the content as illustrated in Figure 6. Context node A 601 has three optional attributes/elements represented as node B 603, node C 605, and node D 607. Each of the optional attributes/elements can be uniquely identified within its context node by a two-bit code word 613, i.e., 00, 01, and 10. In an alternate embodiment also shown in Figure 6, the frequency 615 with which a particular optional attribute/element appears in the context is used as the identifier. The frequency 615 can be determined through Huffman or arithmetic coding techniques that employ static/dynamic frequency tables.--

instance document, or that the generation system 101 may receive an instance document from yet another system for encoding and transmission. Additionally, one of skill in the art will immediately recognize that the encoded instance document 107 can be stored on still another system that transmits the encoded instance document 107 to the presentation system 109 upon request.--

Please replace the paragraph on page 8, starting at line 14 with the following marked up paragraph:

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--Figure 2A illustrates an exemplary schema 200 that defines a class 205 for a ProbabilityModelClass context node. The ProbabilityModelClassType class 205 is derived from an AnalyticModelType class 203, which is in turn derived from a ModelType class 201 in the schema 200. Each of the classes define the number and characteristics of required and optional attributes and elements of the class. A class that is derived from another class inherits the attributes and elements of the parent class. Each class is identified by a field 211, 221, 231, 241 (illustrated in Figure 2A containing the name of the class).--

Please replace the paragraph on page 9, starting at line 7 with the following marked up paragraph:

--A ProbabilityModelType class 207 defines the ProbabilityModel element. The ProbabilityModelType class 207 is derived from the ModelType class 201 and thus inherits the optional attributes 215 as its optional attributes 245. It also defines seven optional elements, Mean, Variance, Min, Max, Mode, Median, and Moment, which may have multiple values. The ProbabilityModelType class 207 contains no required attributes 243 or required elements 247.--

Please replace the paragraph on page 17, starting at line 9 with the following marked up paragraph:

--On the other hand, if the schema order may not be preserved, the method 325 determines if the optional attributes are unordered (block 334). If the attributes are ordered, the order bit 525 is set to "1" at block 335, the optional attribute mask 527 is created at block 332, and the section header 521 is built at block 333. If optional attributes are unordered, the order bit 525 set to 0 (block 337). The number of optional attributes present is stored in the number field 535 at block 338 and the section header

Please replace the paragraph on page 28, starting at line 1 with the following marked up paragraph: KD 4/22/08

--Figure 7B shows one example of a conventional computer system that can be used as a client computer system or a server computer system or as a web server system. It will also be appreciated that such a computer system can be used to perform many of the functions of an Internet service provider, such as ISP 5. The computer system 51 interfaces to external systems through the modem or network interface 53. It will be appreciated that the modem or network interface 53 can be considered to be part of the computer system 51. This interface 53 can be an analog modem, ISDN modem, cable modem, token ring interface, satellite transmission interface (e.g. "Direct PC"), or other interfaces for coupling a computer system to other computer systems. The computer system 51 includes a processing unit 55, which can be a conventional microprocessor such as an Intel Pentium microprocessor or Motorola Power PC microprocessor. Memory 59 is coupled to the processor 55 by a bus 57. Memory 59 can be dynamic random access memory (DRAM) and can also include static RAM (SRAM). The bus 57 couples the processor 55 to the memory 59 and also to non-volatile storage 65 and to display controller 61 and to the input/output (I/O) controller 67. The display controller 61 controls in the conventional manner a display on a display device 63 which can be a cathode ray tube (CRT) or liquid crystal display. The input/output devices 69 can include a keyboard, disk drives, printers, a scanner, and other input and output devices, including a mouse or other pointing device. The display controller 61 and the I/O controller 67 can be implemented with conventional well known technology. A digital image input device [[6]]71 can be a digital camera which is coupled to an I/O controller 67 in order to allow images from the digital camera to be input into the computer system 51. The non-volatile storage 65 is often a magnetic hard disk, an optical disk, or another form of storage for large amounts of data. Some of this data is often written, by a direct memory access process, into memory 59 during execution of software in the computer system 51. One of skill in the art will immediately recognize that the term "computer-readable medium" includes any type of storage device that is accessible by the processor 55 and also encompasses a carrier wave that encodes a data signal.--